

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl.No.: 09/522,421
Appellant: Stachurski et al
Filed: March 9, 2000
TC/AU: 2626
Examiner: Chawan

Confirmation No.: 4064

Docket: TI-29010
Cust.No.: 23494

APPEAL BRIEF

Commissioner for Patents
P.O.Box 1450
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Sir:

The attached sheets contain the Rule 41.37 items of appellant's Appeal Brief pursuant to the Notice of Appeal filed 04/09/2007. The Director is hereby authorized to charge the fee for filing a brief in support of the appeal plus any other necessary fees to the deposit account of Texas Instruments Incorporated, account No. 20-0668.

Respectfully submitted,

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Rule 41.37(c)(1)(i) Real party of interest

Texas Instruments Incorporated owns the application.

Rule 41.37(c)(1)(ii) Related appeals and interferences

There are no related dispositive appeals or interferences.

Rule 41.37(c)(1)(iii) Status of claims

Pursuant to MPEP 1205.02, for each claim in the case appellant states the status as follows:

Claim 1: rejected

Claim 2: rejected

Claim 3: rejected

Claim 4: rejected

Pursuant to MPEP 1205.02, appellant identifies each claim on appeal as follows

Claim 1: on appeal

Claim 2: on appeal

Claim 3: on appeal

Claim 4: on appeal

Rule 41.37(c)(1)(iv) Status of amendments

There is no amendment after final rejection.

Rule 41.37(c)(1)(v) Summary of claimed subject matter

The independent claims on appeal consist of method claim 1.

The subject matter of claim 1 is an encoding method for digital speech using strong and weak predictors for spectra vectors (application page 9, lines 26-30; Figure 1b), comprising the step steps of:

(a) replacing a strong predictor for a current frame following a preceding frame using a weak predictor with a weak predictor for said current frame (application page 9, lines 20-25; Figure 1b); and

(b) outputting the weak predictor for said current frame as the predictor for said current frame (application page 9, lines 23-25 and 29-30; Figure 1b).

Rule 41.37(c)(1)(vi) Grounds of rejection to be reviewed on appeal

The grounds of rejection to be reviewed on appeal are:

1. Claims 1-4 were rejected as unpatentable under 35 USC § 101 as directed to non-statutory subject matter.

Rule 41.37(c)(1)(vii) Arguments

1. Claims 1-4 were rejected as directed to non-statutory subject matter.

Claims 1-4: The Examiner asserted a lack of a limitation to a practical application and mere manipulation of the abstract idea of converting one set of numbers into another set of numbers without pre or post processing steps. However, base claim 1 is limited to spectra vectors of frames of digital speech, which is a practical application of the idea of replacing a strong predictor with a weak predictor.

In particular, MPEP § 2106 IV. C. 2. (B) states that a claimed invention is directed to a practical application when it otherwise produces a "useful", "concrete" and "tangible" result, based on these factors which are discussed in MPEP § 2106 IV. C. 2. (2) as follows.

MPEP § 2106 IV. C. 2. (2) a) considers "useful" result and concludes that the utility requirement of 35 USC 101 must be met and refers to MPEP § 2107 which notes that an invention has well-established utility when one of ordinary skill in the art would recognize the utility and the utility is specific, substantial, and credible. Thus the base claim 1 invention produces a "useful" result as demonstrated by the example on application page 9, line 26 to page 10, line 28.

MPEP § 2106 IV. C. 2. (2) b) considers "concrete" result and concludes as follows.

Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. In other

words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. ... The opposite of "concrete" is unrepeatable or unpredictable. ...

Thus base claim 1 invention produces a "concrete" result because it is repeatable and predictable (coincidentally, the claim involves predictors).

MPEP § 2106 IV. C. 2. (2) c) considers "tangible" result and concludes as follows.

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. In other words, the opposite meaning of "tangible" is "abstract".

Thus base claim 1 produces a "tangible" result because it computes weak and strong predictors for spectra vectors of frames of real-world digital speech.

Rule 41.37(c)(1)(viii) Claims appendix

Claim 1 An encoding method for digital speech using strong and weak predictors for spectra vectors, comprising the step steps of:

- (a) replacing a strong predictor for a current frame following a preceding frame using a weak predictor with a weak predictor for said current frame; and
- (b) outputting the weak predictor for said current frame as the predictor for said current frame.

Claim 2 The method of claim 1, wherein:

- (a) said strong predictor and said weak predictor predict the Fourier coefficients for the pitch harmonics.

Claim 3 The method of claim 2, wherein:

- (a) said strong predictor equals a multiple of the Fourier coefficients of a prior frame with the multiple in the range of 0.7 to 1.0; and
- (b) said weak predictor equals a second multiple of the Fourier coefficients of said prior frame with said second multiple in the range of 0.0 to 0.3.

Claim 4 The method of claim 1, wherein:

- (a) said step (a) of claim 1 replaces a second successive strong predictor with a corresponding second weak predictor.

Rule 41.37(c)(1)(ix) Evidence appendix

none

Rule 41.37(c)(1)(x) Related proceedings appendix

none